GEOGRAPHIC SCHOOL BULLETINS

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► Belgium
► Candidates Cover the Country
► Meet Mr. Diggerfoot
► The Mohawk, No. 1 in Valley Series
► Going to School Around the World

BELGIAN LACEMAKER'S lined face has become a symbol for her land's ancient craft

61

MAYNARD OWEN WILLIAMS

NATIONAL GEOGRAPHIC PHOTOGRAPHER B. ANTHONY STEWART

the size of the Hoosier State. In level fields, farmers work with Belgian horses—mighty beasts with heavy feet and knotting muscles (below). Their tails are docked, so they wag little nubbins at browsing flies. Farmhouses sparkle with painted trim, aquamarine, red. On the highway, traffic is light. Many cars are American, made by Belgian subsidiaries of big American companies.

You wonder at concrete telephone poles, then realize that the only trees in sight are scattered rows of poplars.

Being a tourist, your chief goal is Bruges. Once a thriving river port, Bruges was cut off from the sea when the Zwin Estuary silted up, centuries ago. Though canals still link it with salt water, world trade turned to other ports and Bruges became a sort of island of the Middle Ages, a reminder of the past to nearly nine million industrious, modern-minded Belgians. Here old ladies with all of history in their faces make world-famed lace, sitting on the worn doorsteps of stone dwellings that stood when Bruges was young (see cover). Here you picnic beside soft canal waters that disappear beneath imperturbable little bridges. And at night you stroll the banks awed by the reflection of illuminated buildings. Years later you will remember Bruges for its placid canals, rippled by tourist launches as silent as the swans; for its Belfry where a carillon rings tunes over the town's tiled roofs. You may not remember that a Bruges foundry turns out railroad coaches.

Eastward from Bruges you come to Gent, a textile center that boasts fine sculpture and paintings. And beyond lies the capital, Brussels, gay and modern, broad streets lined with stylish shops and restaurants. Above purposeful pedestrians loom the Hotel de Ville (Town Hall), the 17th century guild houses.

From Brussels you may branch north to Antwerp, Belgium's chief port, to see diamond cutters at work (above). Or you may visit the steel manufacturing city of Liége, or swing to the southeast into the wooded hills of the Ardennes. Scenery changes, but small things remain constant: signs in both French and Flemish (similar to Dutch), delivery boys on bicycles with baskets of long bread loaves, canal barges weighted with Belgian coal. Memories of Belgium hinge on the flavor of fine cooking, the distant music of bells.—E.P.

MAYNARD OWEN WILLIAMS

PHOTO BRUSSELLE, BRUGES

Procession of the Holy Blood in Bruges seems to turn back the clock to Middle Ages

Belgium • • • OSTEND TO THE ARDENNES

THE channel steamer docks at Ostend among bright painted North Sea fishing boats, their stumpy masts nodding soberly. These gesturing spars, along with dockside cranes and distant steeples, are all that rise above the uniformly flat, low skyline of warehouses, customs sheds, steplike gabled roofs. Beyond lies all of Belgium.

You watch your luggage being unloaded from the ship, pass through customs, then ride a cab along the waterfront. A wide, tiled promenade separates shops and outdoor cafes from the dazzling yellow beach, thronged with bathers and dotted with their cabanas. A few war scars remind you that Belgium, throughout its history, has felt the tread of millions of military boots. Some towns and regions are better known as battlefields than communities: Waterloo, Ypres, Mons, the Ardennes.

Turning toward the center of Ostend, you drive through a square where flower vendors sell carnations from tilted carts. You pass a band concert, and jolt along tooth-jarring cobbled streets to the town's outskirts. On an eastbound highway you head for open country.

The land here lies flat as Indiana, though all of Belgium is only about a third

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than four times around the world. President Warren G. Harding (1921-23) brought a candidate's voice nearer the people by introducing the loudspeaker to campaign train platforms. The novel device helped swell his crowds.

"The greatest rail traveler of all Presidents was Franklin D. Roosevelt," (1933-45) says the Association of American Railroads. His record: 240,000 miles—equal to almost ten times around the earth, and this by train alone. He delighted in arranging his travel schedules for fun. Once, however, he arranged a journey from Washington to San Diego, California, entailing a 24-hour mistake. Nobody wanted to tell him so; officials simply "absorbed" the extra time by wandering the train off its course and using up time in sidings. Destination was reached —"on schedule". Another penchant was to move his train when a speech ended to avoid the anti-climax of hanging around. The only trouble was local well-wishers were sometimes trapped abroad.

METRO GROUP

WOODROW WILSON logged about 85,000 miles while campaigning, also was the first President to visit Europe

Schedules painstakingly tailored to fit continental distances must sometimes be drastically altered when candidates over-use speaking time. The Wendell Willkie train in 1940 threw New Haven timetables askew when the candidate misjudged platform appearances on a swing through New England.

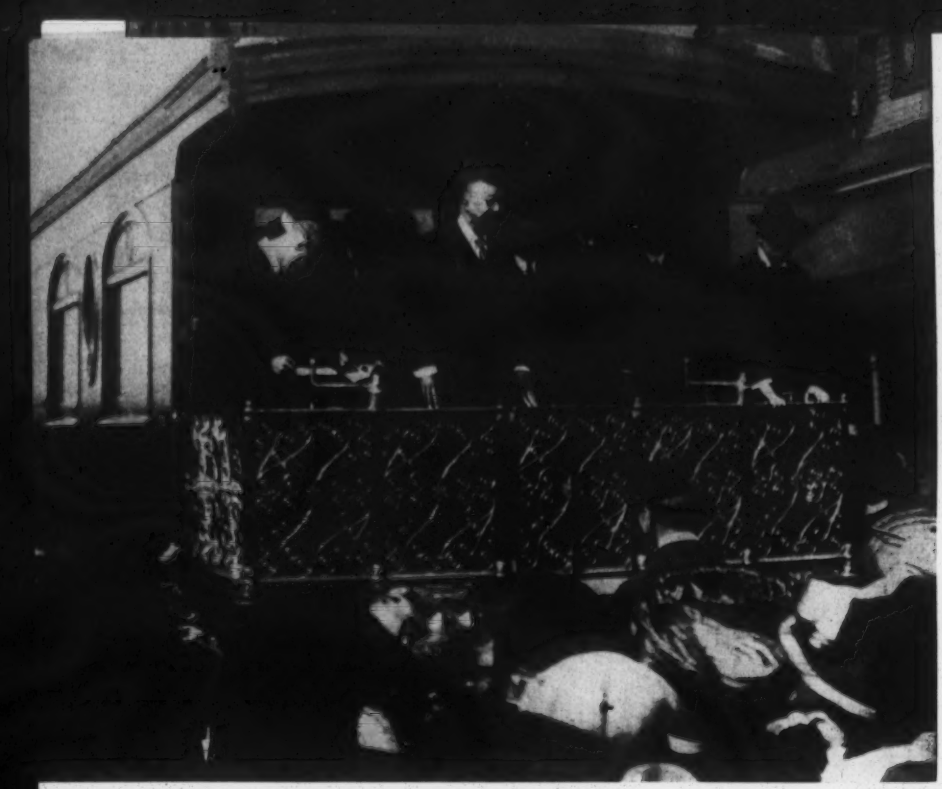
"Going to the people" was a taken-for-granted practice by the time of President Truman's incumbency (1945-53) and spurred him across 32,574 whistle-stop miles in the 1948 campaign. His rail rides while President equaled 24 trips across the continent.

Frequently a dozen or more cars are required for the candidate and his entourage. Usually, a pilot train precedes a Presidential carrier by about five minutes. A regular train may be the pilot on heavily-scheduled lines.

Early Presidents followed the example of George Washington, who didn't campaign at all. Most stayed in the background and let other politicians speak for them. William Henry Harrison made a tour in 1836, visiting eastern states and getting out to Illinois. He lost. In 1840 he stayed home—and won.

Today, even though television brings the candidates' pictures to millions of living rooms, the appeal of a personal, flesh-and-blood appearance is a recognized vote-getter. A veteran dairy farmer in northern New Hampshire summed it up when asked by a pollster how he would vote. "Can't say yet," he replied. "Haven't met either one."—S.H.

UMI



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Candidates Cover The Country

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TOMORROW, 102,750,000 adult Americans will have a chance to choose the President. Millions in every corner of the land know the candidates' faces and voices on television. Hundreds of thousands have seen them in person as they swung through the country by train, plane, and motorcade. However they traveled, an old tradition was served. Office seekers have gone afar to the people since after 1830 when rails first shortened distances.

Campaign "whistle-stop" trains got a booming start in 1858. Traveling in the first train hired purely for politics, Senate aspirant Stephen A. Douglas roared a cannon from a flat car to announce his arrivals for the great debates with Lincoln throughout Illinois. During incumbency, President Andrew Johnson (1865-69) introduced the Presidential Special to confront the people with issues. His famed "swing around the circle" spun his coach wheels to New York City, to Chicago, to St. Louis, and back to Washington, D. C., a long trip then, touching America's still-thin West.

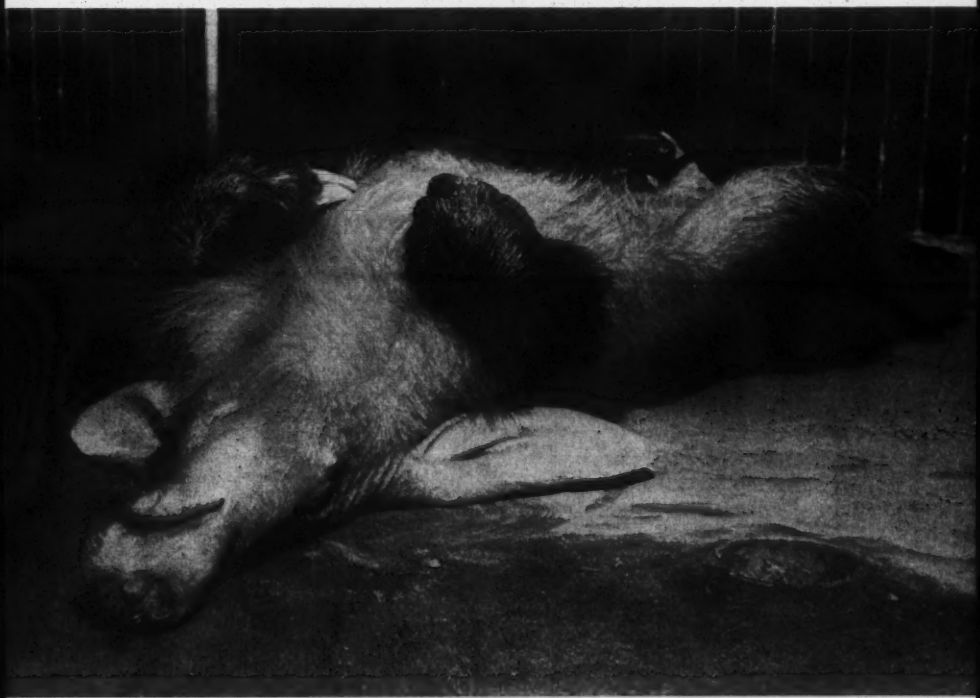
Presidential campaigner William Jennings Bryan traveled like a restless gypsy in 1896. Mountains and flatlands of 27 states spread past him as he endured sweltering coaches, sleepers, and cabooses, interspersed with buggy rides, to pile up 569 addresses—24 of them in one 24-hour period.

Theodore Roosevelt (above) "met the people" with 673 speeches on trips totaling 21,209 miles as he sought the Vice-Presidency in 1900. The growing will to face the voters led William Howard Taft (1909-13) to woo far-flung throngs with 418 addresses. During his term he covered 114,500 miles—more

By night, the aardvark emerges to rob anthills, ripping open each sun-hardened mound at its base. This done, a sticky tongue—often a foot in length—whips out from the small tubular mouth. Dinner is served.

Aardvarks measure an average length of about four feet. Some big fellows stretch six feet from the snout to the end of the strong triangular tail, and tip scales at a hundred pounds. It takes a lot of ants to nourish that much animal—staggering totals of ants per aardvark per diem.

So the digging, snuffling forager with the sticky tongue plays a valuable role in helping to keep populations of "white" ants, or termites, in check. Without aardvarks and other ant-eating wildlife, the towering clay anthills that rise like ancient ruins from Africa's arid expanses would increase in untold numbers.



ERNEST J. COTTRELL

Termites are more nearly related to cockroaches than to true ants. But like ants they have strong social instincts. In Africa, they are prodigious builders, patiently constructing huge communal mounds of soil particles mixed with saliva. These larders for Mr. Diggerfoot sometimes rise 20 feet.

The aardvark is not related to other anteaters. He is an order, genus, and family to himself, with an ancestry as yet vague to science. The genus includes two species, both African. One is the South African variety, or Cape ant bear. The other ranges farther north. Both have yellowish-brown hair, coarse and thin, though the Cape ant bear is slightly less "bald" than his northern cousin.

Unfortunately, the few zoos boasting an aardvark on display have trouble catering exactly to the animal's fussy food preference. The one at Washington's zoo has to make out with ground meat, eggs, and milk. Judging by the smug contentment on his face as he takes an after dinner nap, he is satisfied with board and lodging, and delighted with the easy life—free fare with no digging to do.

Perhaps, though, he dreams now and then of a succulent termite. A hundred or so would make a nice mid-morning picker-upper.—J.A.

PHOTOGRAPHS BY NATIONAL GEOGRAPHIC PHOTOGRAPHER J. BAYLOR ROBERTS

Meet Mr. Diggerfoot

IN HIS native Africa, the comical ant-eating aardvark is an accepted part of the scene, as much at home as in dictionaries and encyclopedias where his name proverbially heads the parade of the animal kingdom. But being in a zoo is another thing. Few survive in captivity. Those that do, such as this one in Washington's National Zoological Park, endure crushing comments like "there isn't any such animal," or "I thought they were extinct."

Ungainly, hump-backed, long-clawed, the nocturnal animal must have amused the Dutch colonists who first stumbled on him in South Africa. These seventeenth century settlers named him with a combination of two words meaning earth pig. To science he's *Orycteropus*, but that's combining words, too. It means "diggerfoot."

Four blunt and powerful claws give the aardvark his reputation as one of the world's best diggers. During the day he uses his paws like long-tined garden forks to burrow deep underground, finding solitude and peace while the African sun burns above.

He's a rapid digger, and often escapes danger by tunneling, disappearing underground like a huge, frantic sand-crab—a frustrating sight for his arch-enemy the lion. The ruse does not always save him from man. To certain African tribes, few suppers are more tempting than one offering the aardvark's white flesh. Natives take considerable pains to hunt him down, crawling into his hole, following the deep underground channel persistently until they come upon him. A tap on the ceiling of the luckless animal's hideaway signals a tribesman waiting above, who digs straight down. Trapped in this way, the aardvark is virtually without defense except for his formidable claws.

The claws, incidentally, are not wasted by the superstitious natives. They are saved, and used as charms to ward off evil.

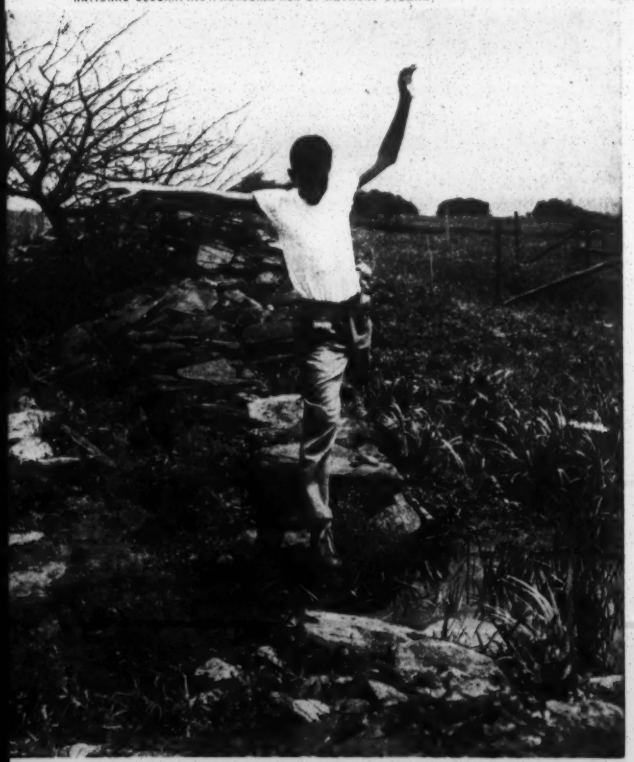
The Valley's first contact with man came in the soft thump of Indian moccasins. Iroquois tribesmen padded through it on wide-ranging hunts. Dutch traders ventured up it in search of furs. French priests traveled down it. Settlers' groaning wagons jolted westward on a log turnpike, to open new land along lakes Ontario and Erie.

Inevitably, the Valley blazed with skirmishes between Indian, Frenchman, and pioneer. Mohawks, Oneidas, Onondagas, Cayugas, Senecas whooped, scalped, burned—and were driven back. At Schenectady, where raiding redskins crept inside the stockade to commit cruelties that "no Pen can write nor Tongue expresse," science and engineering at the immense General Electric Company now blaze a trail to the future.

British soldiers filed through Nature's highway taking part in the ill-fated scheme of 1777 to subdue rebelling colonies. Barry St. Leger, King's colonel, landed at Oswego and tramped down the Mohawk, aiming for Albany where he was supposed to join forces with Burgoyne and Howe. Fort Stanwix, where Rome stands now, barred his way.

Advancing to aid the besieged fort, General Nicholas Herkimer and his Tryon County militia were ambushed by a swarm: British, Hessian, Loyalist, and Indian fighters, urged on by Mohawk Chief Joseph Brant. The close-in fight at Oriskany, six miles east of Rome, was among the war's deadliest, one of the borning Nation's encouraging victories. Oriskany Battlefield, now a State memorial, lifts a granite monument commemorating the clash. A glass of milk drunk by a youngster in a New York City apartment may have come from cows near Herkimer, named for the old Indian fighter and patriot general.

NATIONAL GEOGRAPHIC PHOTOGRAPHER B. ANTHONY STEWART



Cannons roared as the Erie Canal opened in 1825. "Clinton's Ditch" had been hewn through the valley largely by tough, pick-swinging Irish immigrants. In a short time barges crammed with produce glided through the mountains, linking tide water with the Middle West. Songs rose from their decks to take a place in American folklore:

"I don't have to call when
I want my Sal,
"Fifteen years on the
Erie Canal;
"She trots from the stall
like a good old gal,
"Fifteen years on the
Erie Canal."

Railroads came, and later, highways. But even today, beside the brand new billion dollar New York Thruway, an oil barge and tug may plod westward on the Erie

NATIONAL GEOGRAPHIC PHOTOGRAPHER ROBERT F. SISSON

No. 1 in a series on Valleys of the United States

Mohawk Valley

ON expressway, canal, and nearby railroad commerce rolls through New York's garden-like Mohawk Valley. From the Hudson River near Albany it spreads westward to industrial Utica, dividing the Adirondack Mountains from the Catskills, providing the only water-level pass through the Appalachian Mountains from Maine to Georgia.

The Mohawk River, partly channeled into the straight-thrusting Erie Canal, rises high on a hill north of Rome in the western part of the Valley. Without half trying, a boy can leap across it (page 69). Water at that height of land flows north or south. Rain falling on a barn roof may drain north through the Black River basin to Lake Ontario, or, on the other side of the ridgepole, run into the Mohawk. The latter curls through the Valley for 160 miles and grows to the State's second most important river by the time it flings itself into New York's first river, the Hudson, at Cohoes, above Troy.

But the Mohawk Valley is no river gorge, cut by recent centuries of spring floods. Glacial ice scoured it eons ago, and washed it with a prehistoric torrent breaking down Nature's barriers to leave a broad carpet to the sea. Today the green belt is studded with smokestacks and farm silos. The rich soil is ennobled with the blood of pioneers and patriots. All its length, just under 100 miles, the Mohawk Valley holds tremendous meaning for millions of Americans who have never seen it.

Going to School Around the World

DRAWING BY NATIONAL GEOGRAPHIC ARTIST STAN JENNINGS

DID you ride a boat to school today? Or an aerial tramway? Or did you catch a slow but sure bullock cart? If you are an average American school boy or girl you reached your classroom either by walking a few blocks or by riding the familiar yellow bus. But over the world there is many an unusual and exciting method of getting to school.

Boats in various forms serve many pupils. Fishermen and trappers in the Louisiana bayou country hustle their youngsters along at the call of "School boat comin' round the bend." Tall cypress trees, their gnarled roots pushing into the water, line the "highway" leading to school, while silently the alligators hear multiplication tables rehearsed as the school boat passes. Farther north, the Statue of Liberty waves a send-off as children living on twelve-acre Liberty Island clamber aboard another boat bus. They will transfer at the Battery and take a ferry to a school on Governor's Island. The trip from island to mainland is speedier for some youngsters of Rattlesnake Island in Lake Erie. A plane collects them and flies them to classes in the town of Put-in-Bay.

The air-borne 20th century seems to fade abruptly in the scene below. Bullock

NATIONAL GEOGRAPHIC PHOTOGRAPHER VOLKMAR WENTZEL

FROM A PAINTING BY F. C. YOHN

HERKIMER AT ORISKANY ignores his wound, orders his men to fight in pairs—one loading, one firing. Though trapped by the enemy, these New Yorkers won the day

Canal. Industry flourishes along the banks—the legacy of early settlements that sprouted in the wakes of mule-drawn canal boats.

The whole Valley plays a part in that production that has made New York State the Nation's richest. A man's desk, a woman's clothes, a girl's gloves, a child's air gun, a chef's celery or onion, or an engineer's locomotive—other products beyond listing—are traceable to the Valley's agricultural and industrial life.

Numerous nationalities blend their strains in the Valley's daily affairs—names from England, Scotland, Ireland, Wales, Italy, Germany, Poland. Youngsters from the large Italian group around Rome earn vacation money by working in long onion fields (below).

Among Utica's many foreign groups, none raise such a voice as the Welsh, a people born to song. Visitors who have heard the annual eisteddfod given on New Year's Day have called it "worthy of Wales itself."

Thus the Mohawk Valley has become a mixing bowl of racial and religious backgrounds within the melting-pot State of New York. The vigor and enthusiasm of immigrants have added to the Empire State's rich resources.

NATIONAL GEOGRAPHIC PHOTOGRAPHER B. ANTHONY STEWART

And as a path for trade, the Valley inspired merchants and manufacturers to come and settle along it. Their impact, now, is felt by the whole world.—

National Geographic References: ***Map*** —"New England," (on paper, 50¢; on fabric, $1.00); "Northeastern United States," (on paper, 50¢; on fabric, $1.00). ***Magazines***—November, 1956, "New York State's New Main Street," (school price 55¢); July, 1947, "Drums to Dynamos on the Mohawk," (75¢). ***School Bulletins***—Oct. 24, 1949, "Mohawk Valley Marks 200 Years of History."

hoofs clop gently along a road in India, drawing creaky carts on hand-hewn wooden wheels. Dark-eyed schoolgirls on their way to classes watch the village scene thoughtfully.

During frozen winter in the Province of Quebec, a snowmobile picks up mittened young fry with frost on their lashes. Hop to sunny Honduras: A mule train winds along remote and beautiful trails with students of the Escuela del Maltocal.

The usual bus wouldn't hazard the precipitous six-mile trail to collect youngsters living at the bottom of a canyon beside Idaho's Snake River. A homemade cable-car solves the problem. It whisks them to the top in a minute flat, while startled bobcats stare from ledges along the way. A similar "bus" delights Swiss Alpine children shown in the picture. Breathlessly soaring above crag and chalet, they're off to classes in the valley town of St. Jakob.

ALBERT WINKLER

Another thrill-a-minute way to school: Many lucky young fry in Paris balance books calmly on the rear of Papa's motorcycle as it weaves through the bedlam of morning traffic. Other Europeans might shudder at the rickety rope railway and careening motor scooter. Less dizzying for them are the faithful horse-drawn carts that still tote many a youngster in Europe's rural regions.

Students in many parts of the world use bicycles to and from school. On the Australian island state of Tasmania they're donated by the Education Department—along with waterproof capes to discourage rainy day truants. The flick of a radio switch replaces the school bus in remoter parts of Colombia. From a central station that resembles a deserted schoolroom, the teacher conducts a spelling drill before a microphone. Indians grouped in farmhouse schoolrooms that would seem forever lost in the hills pick up pencils, write. In Iran, school itself rides horseback and often camelback. Nomadic tribes, with their large herds of camels, sheep, and goats still travel the routes of their ancestors, seeking pasture. Today, the three R's often follow. Blackboards, books, and portable lap desks are packed on a horse at ten minutes' notice, ready to join the procession. Wherever it stops, a tent school unfolds. School comes to order for children in bright tribal kilts and petticoats. Similar mobile classrooms follow Bedouins in the blistering Iraqi Desert, but only the boys are allowed to attend.

Jouncing over Arizona's desert roads, school trailers come to the Navajo. Teachers park at crossroads in the reservation, then greet young Indians who trot to class on ponies. In Canada's backwoods, children paddle to school in canoes or, sometimes, teacher calls on them.—J.A.